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Fact Sheet for the Chairman,
Subcommittee on Commerce,
Transportation, and Tourism
Committee on Energy and Commerce
House of Representatives

December 1985

POLLUTION CONTROL

Information on Chemical Industry Safety Equipment Expenditures

ORIGINAL

GAO/RCED-86-70FS

UNITED STATES GENERAL ACCOUNTING OFFICE
WASHINGTON, D.C. 20548

RESOURCES, COMMUNITY, AND ECONOMIC DEVELOPMENT DIVISION

December 20, 1985

B-221424

The Honorable James J. Florio
Chairman, Subcommittee on Commerce,
Transportation, and Tourism
Committee on Energy and Commerce
House of Representatives

Dear Mr. Chairman:

Your office expressed concerns on November 4, 1985, about safety-related equipment designed to prevent and detect accidental releases of hazardous substances. Specifically, your office requested information on recent expenditures by the chemicals and allied products industry on safety-related equipment and associated operating and maintenance costs.

As agreed with your office at a briefing on November 15, 1985, we are providing you with information on capital and operating expenditures for pollution control equipment by waste category for the chemicals and allied products industry. The Department of Commerce complies data on pollution abatement costs and expenditures on an annual basis. Table I.1 summarizes this information for 1977-83 (1983 is the latest year for which information was available) for the chemicals and allied products industry. As requested, summary data are provided for the United States and several states, including California, Illinois, Louisiana, Missouri, New Jersey, Texas, and West Virginia. We did not verify the accuracy of Commerce's data. It is important to note that accidental releases of hazardous pollutants constitute only a fraction of the total pollution problem addressed in the table.

In determining whether data on industry expenditures on safety-related equipment were available, we also contacted industry representatives from the Chemical Manufacturers Association and American Institute of Chemical Engineers. Additionally, we contacted officials from the Environmental Protection Agency (EPA) and the Congressional Research Service.

We did not obtain official agency comments; however, we did discuss the contents with EPA program officials and have incorporated their comments in the analysis where appropriate.

Unless you publicly announce its contents earlier, we plan no further distribution of this fact sheet until 30 days from its issue date. At that time, we will send copies to the Administrator of the Environmental Protection Agency and other interested parties upon request. If you have any questions on this fact sheet, please call me on (202)275-5489.

Sincerely,

Hugh J. Wessinger

Hugh J. Wessinger
Senior Associate Director

TABLE I.1

POLLUTION ABATEMENT CAPITAL AND OPERATING COSTS

FOR THE CHEMICAL AND ALLIED PRODUCTS INDUSTRY IN

THE UNITED STATES AND SELECTED STATES--YEARS 1977-83

United States

	1977	1978	1979	1980	1981	1982	1983
				($ in millions)			
Capital costs							
Air	$339.9	$376.3	$ 314.6	$325.9	$335.0	$272.8	$159.0
Water	593.1	385.9	360.7	350.0	322.2	256.5	187.4
Solid (hazardous and nonhazardous) waste	49.6	65.1	95.6	104.8	95.6	98.3	49.0
Total	$982.5	$827.5	$770.9	$780.7	$752.8	$627.6	$395.4
Operating costs							
Air	$ 336	$ 399	$ 485	$ 540	$ 572	$ 556	$ 625
Water	646	744	835	877	998	1,038	1,013
Solid (hazardous and nonhazardous) waste	215	274	278	363	399	424	452
Total	$1,197	$1,417	$1,598	$1,780	$1,968	$2,018	$2,090

Source: U.S. Bureau of Census report: Pollution Abatement Costs and Expenditures, Volumes 1977 through 1983.

Notes:

1. Statistics in this table cover manufacturing establishments with 20 or more employees.

2. Operating costs do not include industry expenditures to government for sewer discharge fees and waste disposal.

3. Totals may not agree due to rounding at intermediate steps.

Abbreviations

NA: Not Available.

(D): Data withheld by U.S. Department of Commerce to avoid disclosing operations of individual companies.

(S): Data not published because it did not meet U.S. Department of Commerce's standards.

California

	1977	1978	1979	1980	1981	1982	1983
				($ in millions)			
Capital costs							
Air	$11.4	$10.6	(S)	$ 9.6	NA	$6.5	$4.5
Water	10.8	5.4	8.9	13.4	NA	3.7	2.8
Solid (hazardous and nonhazardous) waste	0.5	0.4	1.4	5.1	NA	1.0	0.3
Total	$22.6	$16.4	NA	$28.2	NA	$11.2	$7.5
Operating Costs							
Air	$11.1	$14.7	$22.7	$15.6	$21.2	$16.4	$18.5
Water	12.4	15.4	14.6	23.0	19.9	21.5	25.9
Solid (hazardous and nonhazardous) waste	10.0	13.8	11.8	21.4	17.1	10.3	17.1
Total	$33.5	$43.9	$49.1	$60.0	$58.2	$48.1	$61.6

Illinois

	1977	1978	1979	1980	1981	1982	1983
				($ in millions)			
Capital costs							
Air	$16.0	$32.6	$23.1	$ 9.4	$ 9.3	$ 5.8	$ 7.2
Water	12.8	13.6	21.4	12.2	10.1	8.8	10.8
Solid (hazardous and nonhazardous) waste	1.5	1.1	5.0	5.3	7.3	11.2	1.3
Total	$30.3	$47.3	$49.5	$26.9	$26.7	$25.8	$19.2
Operating costs							
Air	$14.8	$17.3	$24.5	$24.1	$23.4	$30.2	$27.7
Water	18.1	18.9	23.3	24.5	26.1	32.6	35.7
Solid (hazardous and nonhazardous) waste	10.0	13.4	14.5	19.3	19.1	18.8	21.9
Total	$42.9	$49.5	$62.3	$67.9	$68.6	$81.6	$85.3

Louisiana

	1977	1978	1979	1980	1981	1982	1983
				($ in millions)			
Capital costs							
Air	$ 35.0	$ 53.6	$ 39.6	$ 53.5	$ 46.1	$41.7	$13.2
Water	118.3	82.4	73.6	43.0	39.7	38.5	19.3
Solid (hazardous and nonhazardous) waste	14.5	13.9	11.8	6.0	18.9	7.9	5.4
Total	$167.8	$149.8	$125.0	$102.6	$104.7	$88.2	$37.8
Operating Costs							
Air	$ 31.4	$ 30.4	$ 47.5	$ 54.8	$ 62.3	$ 59.1	$ 59.9
Water	81.6	102.4	112.7	117.3	149.6	132.9	120.6
Solid (hazardous and nonhazardous) waste	19.9	30.6	(D)	49.2	56.2	52.7	54.0
Total	$132.8	$163.4	NA	$221.5	$268.1	$244.7	$234.6

Missouri

	1977	1978	1979	1980	1981	1982	1983
				($ in millions)			
Capital costs							
Air	$ 4.7	$ 3.1	$ 2.5	$ 9.9	$ 9.1	$2.2	$3.1
Water	10.9	3.7	8.6	3.7	10.6	(D)	2.3
Solid (hazardous and nonhazardous) waste	0.3	0.2	(S)	1.2	0.5	(D)	1.2
Total	$15.8	$ 7.0	NA	$14.8	$20.1	$9.5	$6.6
Operating costs							
Air	$ 7.7	$11.3	8.2	$17.6	$12.3	$12.0	$13.6
Water	11.0	15.3	(D)	6.6	14.2	13.3	13.3
Solid (hazardous and nonhazardous) waste	2.0	5.2	(D)	4.3	4.3	4.8	5.5
Total	$20.8	$31.9	NA	$28.4	$30.8	$30.2	$32.3

New Jersey

	1977	1978	1979	1980	1981	1982	1983
				($ in millions)			
Capital costs							
Air	$ 10.7	$ 18.5	$ 15.7	$ 13.9	$ 13.4	$ 9.6	$ 8.3
Water	32.8	22.9	24.3	18.2	15.6	8.3	8.6
Solid (hazardous and nonhazardous) waste	0.9	2.3	3.7	2.9	2.5	4.0	1.7
Total	$ 44.3	$ 43.7	$ 43.7	$ 34.9	$ 31.5	$21.9	$18.6
Operating Costs							
Air	$ 25.0	$ 26.7	$ 42.2	$ 46.5	$ 47.0	$ 29.2	$ 24.7
Water	58.8	65.0	75.3	76.4	75.8	65.3	60.8
Solid (hazardous and nonhazardous) waste	12.5	15.5	18.4	23.1	28.1	23.3	35.5
Total	$ 96.4	$107.1	135.9	$146.0	$150.9	$117.8	$120.9

Texas

	1977	1978	1979	1980	1981	1982	1983
				($ in millions)			
Capital costs							
Air	$ 50.9	$80.5	$ 55.3	$ 57.1	$67.8	$35.8	$51.4
Water	85.5	48.8	40.9	49.8	46.3	42.8	21.1
Solid (hazardous and nonhazardous) waste	14.6	20.3	9.3	15.3	17.6	18.3	16.2
Total	$151.0	$149.6	$105.5	$122.2	$131.7	$96.9	$88.6
Operating costs							
Air	$ 59.5	$ 79.8	$ 92.5	$106.9	$116.7	$106.0	$103.0
Water	113.0	126.0	132.3	145.4	164.7	216.6	168.5
Solid (hazardous and nonhazardous) waste	50.4	61.6	48.8	65.1	66.9	53.6	62.6
Total	$222.6	$267.3	$273.6	$317.4	$348.2	$376.2	$334.0

APPENDIX I

West Virginia

	1977	1978	1979	1980	1981	1982	1983
				($ in millions)			
Capital costs							
Air	$ (D)	$ (D)	$ 4.5	$ 3.6	$ 9.4	$ 4.3	$ 4.2
Water	70.7	15.2	12.1	7.4	9.6	4.7	(D)
Solid (hazardous and nonhazardous) waste	(D)	(D)	5.3	7.9	0.7	2.8	(D)
Total	$85.6	$27.6	$21.9	$18.9	$19.7	$11.9	$19.4
Operating Costs							
Air	$11.5	$15.9	$16.1	$15.5	$19.0	$16.6	$15.2
Water	37.1	51.5	56.3	44.6	54.9	49.3	48.4
Solid (hazardous and nonhazardous) waste	9.9	10.6	9.5	9.8	14.3	13.4	10.5
Total	$58.5	$78.0	$81.9	$70.2	$88.2	$79.2	$74.2

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